REMARKS

The Specification is objected to for informalities as indicated in the Office Action.

Claims 1-25 have been pending.

Claim 6 is objected to because of informalities.

Claims 1-25 are rejected under 35 USC 112, second paragraph, for being indefinite.

Claims 1-4, 6-8, 10, 11, 13-18, 20-22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Robertson et al. (US 6,486,895).

Claims 5, 9, 12, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson et al. (US 6,486,895) in view of Gounares (US 6,681,370).

Claims 1-25 are amended, new claim 26 is added, and, thus, claims 1-26 remain pending for reconsideration, which is respectfully requested.

No new matter has been added in this Amendment. The forgoing rejections are hereby traversed.

IN THE SPECIFICATION

In page 2, item 1 of the Office Action, the Examiner objected to the specification for informalities as indicated.

The specification is amended according to the forgoing to correct the grammatical and/or spelling errors identified by the Examiner as well as other grammatical, spelling and/or typographical errors. Withdrawal of the objection to the specification is respectfully requested.

IN THE DRAWINGS

In the Office Action, at page 2, item 2, the Examiner objected to the drawings. To overcome the objection, one replacement sheet for Fig. 10 is submitted herewith. In FIG. 10, operation 604, "DELTE" has been corrected to –DELETE–.

Further, one replacement sheet for FIG. 1 is submitted herewith, in which block 50, "OBJECT DSPLAY ..." is corrected to –OBJECT DISPLAY–.

Approval and entry of the attached two replacement drawing sheets for FIGS. 1 and 10 for changes to the Drawings is respectfully requested.

CLAIM OBJECTION AND 35 USC §112, SECOND PARAGRAPH, REJECTION

Claims 1-25 are amended taking into consideration the Examiner's comments. Withdrawal of the objection and the indefiniteness rejection is respectfully requested.

CLAIM REJECTIONS – 35 USC §102(e) AND 103

Claims 1-25 are pending of which claims 1, 15 and 25 are independent.

In the Office Action, claims 1-4, 6-8, 10-11, 13-18, 20-22 and 24-25 are rejected under 35 U.S.C. §102(e) as being anticipated by Robertson (US 6,486,895). Further, dependent claims 5, 9, 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson (US 6,486,895) in view of Gounares et al. (US 6,681,370).

Independent claims 1, 15 and 25 are amended, and are now deemed to be patentably distinguishing over Robertson. In addition, dependent claims 2-4, 6-8,10-11, 13-14, 16-18, 20-22 and 24 are deemed to be allowable for the reason that amended claims 1 and 15 are allowable. New claim 26 provides an alternative recitation of the present claimed invention. Support for the claim amendments and new claim 26 can be found, for example, in FIGS. 1-5, 13; page 3, lines 7-28; page 7, line 26 to page 10, line 30; and page 17, line 9 to page 18, line 19, of the present Application. *See also, FIGS. 15A-15H and description thereof on page 30, line 27 to page 34, line 1, concerning example operations of the claimed present invention.*

In amended claim 1, holding means holds, in an executable manner, a plurality of different intermediate data generating means specific to said respective content types for generating respective pieces of intermediate data for display, and a plurality of different display image generating means specific to said respective content types for generating respective display images from the respective generated pieces of intermediate data. This configuration can be implemented by content type specific data processor functions 10, 20 and 21 in an object data processor 111, as shown in FIGURE 1 of the present Application. In particular, each content type specific data processor function 10, 20 and 21, comprises an object display intermediate data generator 12 and an object image generator 14, as shown in FIG. 1 of the present Application.

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Therefore, in contrast to Robertson, the independent claims 1, 15, and 25, using claim 1 as an example, are amended to expressly claim the foregoing configuration, as follows:

holding means for holding, in an executable manner, *a plurality of different intermediate data generating means specific to said respective different content type*~~type~~*types of the information objects for generating respective pieces of intermediate data for display*, and *for holding, in an executable manner, a plurality of different display image generating means specific to said respective different content type*~~type~~*types of the information objects for generating a-*~~a~~*respective display image*~~image~~*images from said respective generated pieces of intermediate data*;

first means for causing said *plurality of different* intermediate data generating means to *generate the respective pieces of intermediate data for displaying said*~~said~~*respective particular information object*~~object~~*objects of the different content types*, when ~~it is determined, in accordance with~~*determined according to a geometric relation between said visual field and said respective particular information object, that*~~object, that~~*objects to generate said respective pieces of intermediate data of said respective particular information* ~~object should be generated~~*objects*; and

second means for causing said *plurality of different* display image generating means to *generate a-*~~a~~*display image*~~image~~*images of said respective particular information object*~~object~~*objects from said respective generated pieces of intermediate data*, when ~~it is determined, in accordance with~~*determined according to the geometric relation between said visual field and said respective particular information object, that*~~object, that~~*objects to display* said *respective particular information* ~~object should be displayed~~*objects* (emphasis added).

Further, in contrast to Robertson, the claimed present invention as recited in new claim 26, provides:

> a data storage that stores, in an executable manner, *a plurality of intermediate data generators, each corresponding to a different content type of the linked information objects* to generate display intermediate data of the linked information objects, and stores *a plurality of display image generators, each corresponding to the different content types of the linked information objects* to generate display images from corresponding generated display intermediate data of the linked information objects;

> an object data manager causing *one of the intermediate data generators corresponding to a content type of a representative information object to generate display intermediate data* to display the representative information object, *according to a geometric relation between the visual field and the representative information object;* and

> an image generator causing *one of the display image generators corresponding to the content type of the representative information object to generate a display image of the representative information object from the generated display intermediate data* of the representative information object, *according to the geometric relation between the visual field and the representative information object* (claim 26, emphasis added).

The claimed present invention provides a benefit of efficiently displaying in one picture, as shown in FIGS. 15F and 15G, a combination of different pieces of content specific to different content types, such as plain text, a text file (e.g., HTML or XML documents), a data file (e.g., JPEG or MPEG data files), a data stream, a directory data, and program codes. See, page 16, lines 3-20 and page 30, lines 27-36, of the present Application. Support for the claim amendments and new claim 26 can be found, for example, in FIGS. 1-5, 13; page 3, lines 7-28; page 7, line 26 to page 10, line 30; and page 17, line 9 to page 18, line 19, of the present Application. *See also, FIGS. 15A-15H and description thereof on page 30, line 27 to page 34, line 1, concerning example operations of the claimed present invention.*

Robertson (US 6,486,895) fails to disclose holding means as specifically defined in claim 1 of the present Application. Robertson (US 6, 486, 895) discloses a book metaphor, in which each page has a form of a flat surface.

In the present invention, however, holding means holds sets of different intermediate data generating means and display image generating means, *which sets are specific to the respective content types.* Hence the claimed present invention provides a benefit that a

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combination of different objects of different content types, such as a plane surface, a curved surface and a solid figure, can be efficiently displayed in one picture as shown in FIGURES 15F and 15G. Moreover, a new additional set of intermediate data generating means and display image generating means can be easily incorporated into the holding means.

In amended claim 1,

> first means for causing said plurality of different intermediate data generating means to *generate the respective pieces of intermediate data for displaying said*respective *particular information* object*objects of the different content types*, when it is determined, in accordance with*determined according to a geometric relation between said visual field and said respective particular information* object, that*objects to generate* said respective pieces of intermediate data of said respective particular information object should be generated*objects; and*

> second means for causing said plurality of different display image generating means to *generate a*-display *image*images of said respective particular information* object*objects from said respective generated pieces of intermediate data, when it is* determined, in accordance with*determined according to the geometric relation between said visual field and said respective particular information* object, that objects to display* said respective particular information object should be displayed*objects.*

The geometric relation determinations by the first and second means are described in the Specification, page 19, line 8 to page 27, line 8 and FIGURES 6-9, of the present Application. In FIG. 7 of the present Application, at operation 303, the geometric relation of the information object to the visual field is determined. At operation 304, display priority is determined in accordance with the determined geometric relation. In FIG. 8 of the present Application, at operation 420, it is determined whether the display priority is higher than a predetermined threshold. If so, the intermediate data is generated at operation 423. Thus, as the visual field moves, it can be determined automatically which information object requires intermediate data to be generated and also which information object should be displayed. Thus a user simply moves the visual field to allow these determinations for displaying the linked information objects, without specifying which information object requires intermediate data to be generated and which information object should be displayed. The priorities are determined in accordance with position, orientation, scale ratio and the like of the object relative to the visual field.

Robertson (US 6,486,895) fails to disclose or suggest the claimed present invention's

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first and second means to perform determinations for a content type of a representative information object concerning generation of intermediate data and a display image based upon the intermediate for the representative information object, according to a geometric relation between a visual field and the representative information object. Robertson (US 6,486,895) merely discloses page object generation circuitry coupled to said storage device, said page object generation circuitry for generating page objects for each document in said list of linked documents, each of said page objects comprising a content portion and a page control portion (column 11, lines 61-64), and a first area for displaying a first page object as a first left page of a book displayed on said display, said first left page having active contents when displayed, and a second area for displaying a second page object as a second right page of said book displayed on said display, said second right page having active contents when displayed (column 11, lines 5-10). In Robertson (US 6,486,895), by the page object generation circuitry, a page is analyzed and all the relative links are followed and downloaded (column 5, lines 41-44). However, this may require a long time to generate all the intermediate data for displaying. Therefore, in Robertson, a number of relative links can be limited, and the list of pages will be in the order that would appear in the book (column 5, lines 47-49). Therefore, in Robertson, the user or a further program must determine which page requires intermediate data, but Robertson does not disclose or suggest how to provide such intermediate data.

In contrast to Robertson, the claimed present invention provides, "holding, in an executable manner, *a plurality of different intermediate data generating means specific to said respective different content types of the information objects for generating respective pieces of intermediate data for display,* and ... holding, in an executable manner, *a plurality of different display image generating means specific to said respective different content types of the information objects for generating respective display images from said respective generated pieces of intermediate data;* first means for causing said plurality of different intermediate data generating means to *generate the respective pieces of intermediate data for displaying respective particular information objects of the different content types,* when determined *according to a geometric relation between said visual field and said respective particular information objects ...;* and second means for causing said plurality of different display image generating means to *generate display images of said respective particular information objects from said respective generated pieces of intermediate data,* when determined *according to the geometric relation between said visual field and said respective particular information objects ...* (emphasis added).

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Claim 15 represents a program corresponding to claim 1 of a product invention, and hence is allowable. Claim 25 represents a method corresponding to claim 1 of a product invention, and hence is allowable. Claims 2-4, 6-8, 10-11, and 13-14 depend from claim 1, and hence are allowable. Claims 16-18, 20-22 and 24 depend from claim 15, and hence are allowable.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
STAAS & HALSEY LLP

Date: ____August 19, 2004____   By: _____

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